EMERGENCY PREPAREDNESS FOR FLOOD EMERGENCIES AT DAMS

GUIDELINE

August 2003

ALBERTA ENVIRONMENT
REGIONAL SERVICES
WATER MANAGEMENT OPERATIONS
REGIONAL INFRASTRUCTURE SUPPORT
DAM SAFETY
ISBN No. 0-7785-2510-4
PUBLICATION No. I/941

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EMERGENCY PLANNING

EMERGENCY PLANNING PROCESS

Where required by the Water Act (ACT) the dam owner shall prepare an Emergency Plan for the specified dam. The Plan shall include an **Emergency Preparedness Plan (EPP)** and an **Emergency Response Plan (ERP)**.

This Guideline can be used as a starting point for producing the documents required to satisfy the requirements of the ACT, and can be used in whole or part or modified to suit the dam and organizational structure of the owner.

Alberta Environment (AENV), following discussions with the dam owner, will specify the date by which the draft Emergency Plan is to be submitted. Following a review by AENV, the owner will be required to distribute the EPP to all affected parties mentioned in the plan.

The owner will be required to confirm that the EPP has been satisfactorily distributed and understood by completing the attached form (see page iii).

EMERGENCY PLANNING

Emergency planning for a flood emergency at dams relies on dam owners providing warnings and downstream local authorities initiating their own **Municipal Emergency Plans (MEP)**.

The dam owner will produce his own site specific **Emergency Response Plan (ERP)** detailing what actions he will take including warnings issued to other responders.

The dam owner is also responsible for initiating and maintaining **an Emergency Preparedness Plan (EPP)** that describes the warnings he will issue and in general terms the actions of other responders. The EPP will contain inundation maps and flood arrival details to allow responders to plan for these situations. The dam owner is the administrator of this plan.

EMERGENCY PREPAREDNESS GUIDELINE

This Guideline contains two documents:

Part 1 – Emergency Preparedness Plans for Flood Emergencies, and

Part 2 - Emergency Response Plans.

These will provide a starting point for dam owners to prepare an EPP and an ERP for their dam to comply with the current dam safety legislation.

This document is intended to provide a format for dam-specific Emergency Preparedness and Response Plans. They are generic plans that evolved from past experience in developing EPPs for Alberta Environment dams. They contain a suggested structure and specify pertinent information that should be included in an EPP and ERP. They can, and should, be adjusted to suit the particular circumstances for each individual dam.

Words and sections in italics are site specific.

Staff training and testing of these plans is essential.

A WORD 2000 electronic copy of these generic plans can be obtained from Dam Safety, Regional Services, Alberta Environment for use as the starting point in the development of dam-specific EPP/ERPs.

AUTHORITY

Alberta Environment may require dam owners to prepare and maintain an Emergency Preparedness Plan for their dams under Section 6, Dam and Canal Safety of the Alberta Water Act, Water (Ministerial) Regulation.

The Alberta Disaster Services Act requires local authorities to be prepared for all types of emergencies that could occur within their municipality.

ISSUING EMERGENCY PREPAREDNESS PLAN FOR THE (NAME OF) DAM

The *(Name of)* Dam Emergency Preparedness Plan has been produced by, *(Name)* on behalf of *(Name of Owner)*, and has been distributed to the following affected parties mentioned in the plan:

1)_____,
2)_____,
3)_____,
4)_____,
5)_____,
6)_____,
7)_____,

Each party understands, and has agreed to fulfil, its role as detailed in the EPP and their approved ERP or MEP.

A plan for staff training and plan testing has been detailed as follows:

_____,
_____,
_____,
_____,
_____,
_____,

Name: _____

Position: _____

Dam Owner: _____

Signed: _____

Dated: _____

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PART 1

Name of Dam

EMERGENCY PREPAREDNESS PLAN

FOR FLOOD EMERGENCIES

This Emergency Preparedness Plan has been issued to the registered holder identified in Section 12.0

Prepared and Administered by *(Name of Dam Owner)*

1.0 INTRODUCTION

1.1 PURPOSE

This **Emergency Preparedness Plan (EPP)** is to be used as a guide to assist Emergency Planners in developing local response plans to deal with a major flood and/or dam breach at the *(Name of)* Dam. Local Authorities should use this plan as a guide to developing annexes to their existing **Municipal Emergency Plans (MEP)** that deal specifically with their response to a major flood and/or dam breach.

The plan specifically addresses what would happen downstream of the *(Name of)* Dam, generally how people and property would be affected, and how emergency responders would be notified of any emergency involving a large flood, potential and/or imminent dam breach.

Should an emergency develop at the *(Name of)* Dam, local authorities and other downstream stakeholders will be contacted as shown on the Fan-out Notification Chart (Section 14.0) and requested to initiate their **Municipal Emergency Plan (MEP)** accordingly.

Other responding agencies can use this plan to develop their own local plans.

To assist emergency responders this plan contains the following information:

- The nature of the anticipated inundation (Section 3.0).
- Maps showing the extent of the inundation, the travel times and water depths (Section 15.0).
- Generally, what other key responders would be doing.
- Fan-out notification procedures (Section 14.0).
- Key contact numbers for responding agencies (Section 13.0).

This Guide identifies two levels of emergency that are possible at the dam, a potential flood emergency and an imminent flood emergency. It is incumbent upon each local authority to ensure their **Municipal Emergency Plan (MEP)** for a major flood or dam breach emergency is current and functional.

The *(Name of)* Dam Emergency Preparedness Plan is a guide to assist responders in developing a Flood Response Annex to their existing emergency plans and not to be used to replace or supersede any existing Emergency Plans of Local Authorities or other responding agencies.

1.2 AUTHORITY

This plan is issued by (*Dam Owner)* responsible for (*Name of*) Dam as required by current legislation. It has been prepared in compliance with the Alberta Public Safety Services Act, the Disaster Services Act and the Alberta Water Act, Water (Ministerial) Regulation, Section 6 - Dam and Canal Safety.

2.0 DAM SITE

2.1 DESCRIPTION OF THE DAM

(Name of) Dam is owned by *(Owner)* and operated by personnel from the *(Name of)* office.

The Dam is a *(Type of)* facility with the primary benefit being *(describe).*

The *(Name of)* Reservoir, is located on the *(Name of)* River, approximately *(number)* km from *(City/Town).* Access to the site from *(City/Town)* is via Highway *(number).*

The primary water retention structure is a *(provide a brief description of the dam and facilities).*

2.2 PERSONNEL

The *(Name of)* Dam is the responsibility of the *(Name of)* office *(provide brief details).*

Key on-site staff includes: *(For example).*

- *Site Superintendent*
- *Senior Operator*
- *Operations Technologist*
- *Field Supervisor I*
- *Field Supervisor II*

Provide details of any "on-call" arrangements that can be contacted by phoning the numbers in the communications directory located in Section 13.0 of this plan.

In the event of an emergency at the dam, site staff would man the **Site Command Post (SCP)** and *(identify by position)* would man the **Regional Emergency Operations Centre (REOC)**. Key contact numbers are located in the communications directory in Section 13.0 of this plan. A functional overview of each responding group is provided in Section 4.0.

3.0 EFFECTS OF INUNDATION

The following is a brief overview and the general nature, timing and hazardous conditions that are likely to develop at various downstream reaches should the *(Name of)* Dam fail. Local Authorities and other key responders must ensure their Municipal Emergency Response Plans include a current, all-inclusive, inventory of impacts to people and property within the flood plain of their jurisdiction and the appropriate corresponding response procedures.

For example: (*Name of)* dam is *located upstream of the cities of (City) and (City) as well as numerous rural residences, small communities and industrial facilities within the (Name of) River floodplain. Failure of the dam would cause substantial flooding and economic losses with a potential for loss of life. Bridges would be destroyed and other essential services such as water supply, power and telephone would be affected. The (Name of) dam is therefore classified as a (very high/high) consequence dam according to the Canadian Dam Association Dam Safety Guidelines.*

The effects of inundations from the breach of the *(Name of)* Dam are shown on the enclosed inundation maps which are based on the best estimate present modelling can produce of the areas that would be affected. The approximate travel times and the river stages of the flood wave are also given.

The charts and inundation maps are in Section 15.0.

4.0 OVERVIEW OF EMERGENCY RESPONSE STRUCTURE

In the event the *(Name of)* Dam experiences a Flood Emergency, site staff are trained to activate their on-site **Emergency Response Plan (ERP).** Activation of the plan facilitates a standard "Incident Command" system and mobilizes the following response mechanisms:

Site Command Post (SCP)

The Site Command Post will manage the emergency in the vicinity of the dam and reservoir. It will attempt mitigation measures if required and also perform initial notifications as described in the Fan-Out Procedures located in Section 14.0 of this plan. Site staff from the dam will man the Site Command Post that will be located in the *(Name of)* area of the main administration building at the *(Name of)* Dam *(or other suitable location).*

Regional Emergency Operations Centre (REOC)

A Regional Emergency Operations Centre will be set up at *(location)* upon notification of a major flood event (if required) and/or identification of a potential dam breach. The centre will provide comprehensive support to site activities by co-ordinating site security, logistical requirements, communications and technical and administrative support. The Regional Emergency Operations Centre's primary function is to support the activities of the Site Command Post and will be manned by *(identify by position).*

Environmental Resource Centre (ERC) (Alberta Environment – Edmonton)

The ERC is a part of Alberta Environment's response to an emergency **at one of its** dams. The ERC will be activated for major flood events, and upon notification of a potential dam breach, at Alberta Environment dams. The ERC will assemble technical and professional experts, and will provide support to regional activities at department Dams. Upon notification, the ERC may be activated, in part, for emergencies at privately owned structures (*this is to be confirmed with Flow Forecasting during preparation of the EPP).* The ERC liases with the **Government Emergency Operations Centre (GEOC)** and senior department officials to provide on-going information to down stream responders as events unfold.

Private owners should provide details of any similar Resource Centre arrangements set up to deal with emergencies at their own dams.

Government Emergency Operations Centre (GEOC) (Municipal Affairs – Edmonton)

The GEOC will perform notifications as described in the Fan-out Notifications List (Section 14.0) and will manage the emergency at the provincial government level. The GEOC will be staffed with the appropriate government officials and agency representatives based on emerging events. The GEOC will also activate the **Public Media Information Room**.

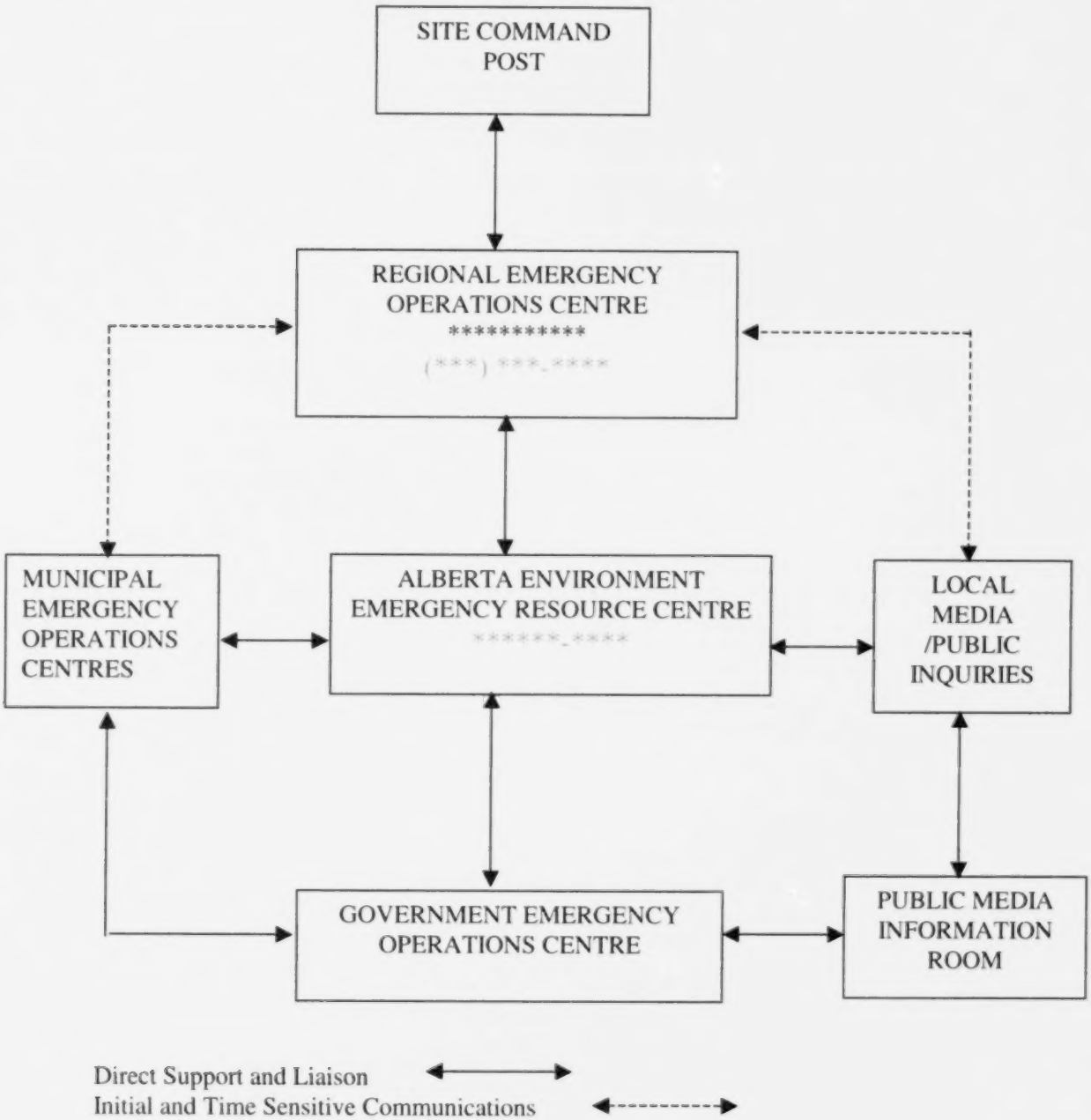
Private owners shall also contact the GEOC.

Municipalities/First Nations

These organizations will activate their **Municipal Emergency Plans (MEP)** and, based on information from the dam owner and/or the **Government Emergency Operations Centre (GEOC)**, will perform the required emergency response procedures as outlined in their plans.

ORGANIZATIONAL RESPONSE MATRIX

(Designed for Government-owned dams. Privately owned dams will have specific arrangements to suit the organizational structure of the owner)



5.0 POTENTIAL FLOOD EMERGENCY

5.1 DEFINITIONS

A Potential Flood Emergency is any condition that could cause a significant and/or sudden increase in water levels downstream of the dam. A Potential Flood Emergency is a condition that has been identified but not yet confirmed as to severity.

- For the purposes of this plan "condition" is defined as an impending flood event or structural/operational situation that threatens, or may threaten, the dams integrity.
- For the purposes of this plan "significant increase in water levels" will be defined as those flows likely to exceed bank full at critical down stream locations.
- For the purposes of this plan "sudden increase" is defined as an operator directed increase due to a dam emergency or due to a dam breach.
- If a Potential Flood Emergency progresses to the Imminent Flood Emergency the protocol outlined in Section 6.0 of this plan will be used.

5.2 DAM SITE/OPERATING PERSONNEL ACTIONS

For a Potential Flood Emergency, site staff shall activate the **On-site Emergency Response Plan** that will direct them to:

1) Activate the **Site Command Post (SCP)** at the *(Name of)* Dam to manage the response at the dam site.
2) If required, activate the **Regional Emergency Operations Centre (REOC).**
3) Begin notifications as per the Fan-out Procedures described in Section 14.0 for a Potential Flood Emergency.
4) Notify residents below the dam as per the ERP downstream notifications table in this document (identified in **Mutual Aid Agreement**).

5.3 ALBERTA ENVIRONMENT FLOW FORECASTING PROGRAM ACTIONS

Any services provided by Flow Forecasting Program to private dam owners shall be agreed upon prior to the preparation of the EPP.

For Potential Flood Emergencies, the Flow Forecasting Program will issue alerts to the stakeholders identified in the Fan-out Procedures (Section 14.0) for one of the following:

1) Flood Watch and/or Warning due to a storm event or ice jam – *initiated by the Flow Forecasting Program based on standard Flow Forecasting Program and stream flow advisory protocols.*

2) Flood Warning due to a potential dam breach (For Alberta Environment Dams).

3) Flood Warning due to an imminent dam breach (For Alberta Environment Dams) (refer to Section 6.0 of this plan).

Flow Forecasting Program will also:

1) Remain abreast of current conditions at the dam through the **Site Command Post (SCP)** or **Regional Emergency Operations Centre (REOC)** at the dam (if mobilized).

2) Activate the **Emergency Resource Centre (ERC)** as required. Continue notifications as required (as described in Section 14.0).

3) Continue notifications as required (as described in Section 14.0).

4) Liase with the **Government Emergency Operations Centre (GEOC)**.

5) Remain abreast of flow conditions throughout the entire basin.

5.4 MUNICIPAL AFFAIRS – EMERGENCY MANAGEMENT ALBERTA ACTIONS

Municipal Affairs, Emergency Management Alberta, will be notified of the Potential Flood Emergency through the Standard Stream Flow Advisory protocol of the Flow Forecasting Program, or by the dam owner to place the GEOC on stand-by.

The **Regional Emergency Operations Centre (REOC)** may request the **Government Emergency Operations Centre (GEOC)** staff to:

1) Begin down stream notifications as per the "Fan-out Procedures" (Section 14.0) for a potential flood emergency.

2) Dispatch the District EMO to the site.

3) Contact other government agencies to assist in response efforts as per the "Fan-out Procedures" (Section 14.0).

4) Co-ordinate the activation of the Public Media Information Room.

5) Liaise with the **Regional Emergency Operations Centre (REOC)**.

5.5 LOCAL AUTHORITIES/FIRST NATIONS ACTIONS

Local Authorities/First Nations will continue to be notified as to the status of the event as part of the Flow Forecasting's Flow Advisory system, or by the dam owner, (as described in the "Fan-Out Procedures" - Section 14.0).

Local Authorities:

1) May be requested to send a representative to the **Regional Emergency Operations Centre (REOC)** *(location)* as a liaison.

2) Will activate their **Municipal Emergency Plan (MEP)** for the Potential Flood Emergency stage. (Note: at this stage, the level of municipal response may still be undetermined).

Depending on the exact nature of the emergency the **Government Emergency Operations Centre (GEOC)** may also be involved in notifications.

5.6 R.C.M.P. ACTIONS

Upon notification of a "Potential Flood Emergency" the RCMP may be requested to send a representative to the **Regional Emergency Operations Centre (REOC).** The RCMP will respond in co-ordination with the local authorities and their Municipal Emergency Plans.

6.0 IMMINENT FLOOD EMERGENCY

6.1 DEFINITIONS

An Imminent Flood Emergency is defined as any condition that will, or likely will, produce significant and/or sudden increases in flow down stream of the dam. An Imminent Flood Emergency is a condition that has been confirmed as serious; however, timelines might be uncertain.

Imminent Flood Emergency protocol will be used for a dam breach in progress and/or when a certain failure of the structure is suspected.

6.2 *(NAME OF)* DAM SITE OPERATING PERSONNEL ACTIONS

Upon initial indication of an Imminent Flood Emergency of the *(Name of)* Dam site staff shall immediately activate the **On-site Emergency Response Plan** that will direct them to (if not already completed during the Potential Stage):

1) Activate the **Site Command Post (SCP).**

2) Activate the **Regional Emergency Operations Centre (REOC)** to be established at *(location).*

If a decision is made to issue an Imminent Flood Emergency notification, *(Name of)* Dam **SCP** staff will then activate the next response level in the **On-site Emergency Response Plan** that will direct them to:

1) Notify Alberta Environment as per the Fan-out Procedures (Section 14.0) for Imminent Flood Emergency.

2) Notify the **Government Emergency Operations Centre (GEOC)** and advise them to begin notifications as per the Fan-out Procedures for Imminent Flood Emergency (Section 14.0).

3) Continue notifications as directed in the Fan-out procedures (Section 14.0).

4) Notify residents below the dam, as per the ERP downstream notification table in this document, (identified in Mutual Aid Agreement).

6.3 ALBERTA ENVIRONMENT FLOW FORECASTING PROGRAM ACTIONS

Any services provided by Flow Forecasting Program to private dam owners shall be agreed upon prior to the preparation of the ERP.

Once an "Imminent Flood Emergency" has been declared, Flow Forecasting Program shall activate **Alberta Environment's Emergency Resource Centre (ERC)**, which will (if not already completed during the Potential stage):

1) Obtain an understanding of the nature of the current conditions from the **Site Command Post** and/or the **Regional Emergency Operations Centre** (once set up).

2) Immediately start the Fan-out Procedures for Imminent Flood Emergency (Section 14.0).

3) Remain abreast of all site conditions and activities and communicate this information to downstream stakeholders, the media and the public.

4) Remain abreast of flow conditions through out the basin and communicate this information as identified in the Fan-out Procedures for Imminent Flood Emergency (Section 14.0) including the media and the public at large.

6.4 MUNICIPAL AFFAIRS – EMERGENCY MANAGEMENT ALBERTA ACTIONS

Upon initial notification of an "Imminent Flood Emergency" at the *(Name of)* Dam, the GEOC Emergency Operations staff will call back *(Name of)* Dam Operation's office to confirm the notification of Imminent Flood Emergency.

Upon verification of the "Imminent Flood Emergency" declaration, Government Emergency Operations staff will begin notifications as per the "Fan-out Procedures" for an Imminent Flood Emergency (Section 14.0).

6.5 LOCAL AUTHORITIES/FIRST NATIONS ACTIONS

Local Authorities notified of an "Imminent Flood Emergency" (as per the "Fan-out Procedures" - Section 14.0) will immediately:

1) Activate their **Municipal Emergency Plan (MEP)** for the Imminent Flood Emergency.

2) If necessary, send a representative to the **Regional Emergency Operations Centre (REOC)** *(insert location or contact).*

6.6 R.C.M.P. ACTIONS

Upon notification of an "Imminent Flood Emergency" the RCMP may be requested to send a representative to the **Regional Emergency Operations Centre (REOC)**. The RCMP will respond in co-ordination with the local authorities and their Municipal Emergency Plans.

7.0 COMMUNICATION SYSTEMS

Provide brief details of communications systems available, for example.

7.1 TELEPHONE

(Name of provider) provides telephone service to the dam site through their *(type of)* exchange by *(type of)* cable.

The *(Name of)* Dam Control Building is serviced by a *(type of)* system. Numbers that can be accessed during an emergency are located in the communications directory located in Section 13.0 of this plan.

If a staff member is unavailable to take a call a messaging service is provided.

7.2 MOBILE RADIO SYSTEM (IF AVAILABLE)

All *(type of)* vehicles stationed at the *(Name of)* Dam are equipped with a *(type of)* radio, which provides provincial wide radio and telephone accessibility through a comprehensive repeater system. A base station is also located in the main Control Building.

7.3 PRIORITY ACCESS FOR DIALLING

Dam owners are to ascertain if priority access is available.

This system allows for telephone priority of essential users responsible for dealing with emergency situations. The **Regional Emergency Operations Centre** can request access to this system through the **Government Emergency Operations Centre**.

7.4 EMERGENCY PUBLIC WARNING SYSTEM

The Emergency Public Warning System is now active in Central Alberta and utilizes television and radio to broadcast emergency information. Agencies able to initiate this system are Municipalities, Environment Canada and/or Alberta Environment through the Flow Forecasting Program. The EPP is to contain this information.

8.0 PROJECT LOCATION INFORMATION

The dam owners are to provide a description of the dam location for example:

The *(Name of)* Dam is located *(number of)* kilometres *(direction)* of *(City/Town),* Alberta. In the event of impending failure, the *(Name of)* Access Road is recommended, as no crossing of the *(Name of)* River immediately downstream of the Dam is required.

- Legal Land Description
- Latitude and Longitude

9.0 UPDATING THE EMERGENCY PREPAREDNESS PLAN

(Name of) Dam, Operations staff will be responsible for updating the **Emergency Preparedness Plan (EPP)** and on-site **Emergency Response Plan (ERP)** annually or as deemed practical and the phone lists as necessary. Revisions will be circulated to all affected agencies identified in the Record of Manual Holders table in Section 12.0 of this manual.

Any revisions and/or comments to the *(Name of)* Dam Emergency Preparedness Plan should be forwarded to the Emergency Co-ordinator listed in the communications directory of this plan (Section 14.0). All revisions will be recorded on the Record of Revisions sheet(s) included in Section 11.0 of this plan.

10.0 MAINTAINING A STATE OF READINESS

10.1 TRAINING

(Name of) Dam staff, identified as emergency responders, will be familiar with all aspects of the Emergency Preparedness and Response Plans.

The Flow Forecasting Program in Edmonton is responsible for ensuring Alberta Environment's Emergency Resource Centre is functional and that other areas manning the centre are aware of their responsibilities to provide adequately trained staff.

The dam owner is responsible for ensuring the **Site Command Post (SCP)** and the **Regional Emergency Operations Centres (REOC)** are functional and that staff is adequately trained. Municipalities and other responders are responsible for their Emergency Measures.

10.2 TESTING PLANS AND PROCEDURES

(Name of) Dam staff will co-ordinate and participate in periodically testing the EPP and dam breach emergency response procedures jointly with downstream agencies and stakeholders. It is incumbent upon each responding agency to have adequate plans and trained staff in place to deal with any emergency within their jurisdiction.

11.0 RECORD OF REVISIONS

REVISION #	DATE	SECTION(S) REVISED/ADDED/DELETED AND REASON
Original		

12.0 RECORD OF EPP MANUAL HOLDERS

AGENCY	PERSON	NUMBER
ALBERTA ENVIRONMENT		
Dam Safety		
Flow Forecasting Program		
EMERGENCY MANAGEMENT ALBERTA		
EMO		

13.0 COMMUNICATIONS DIRECTORY

The contact numbers listed below are to be used during the initial phases of an emergency at the *(Name of)* Dam or for general inquiries during non-emergencies. Once the *dam owners'* **Regional Emergency Operations (REO)** are set-up, additional numbers will be provided to responders as required.

Additional contact numbers for information and/or services provided by the **Government Emergency Operations Centre (GEOC),** including the **Public Media Information Room (PMIR)**, will be provided to responding agencies as required, or is already included in Municipal Emergency Plans. Once fully operational, the PMIR will become the primary source of information for responding agencies, the public and media.

All responding agencies use their **Municipal Emergency Plans (MEP)** to facilitate communications in their jurisdiction and to administer any "Mutual Aid Agreements" as required.

13.1 DAM OWNER

(Name of) Dam – Administration	(-----) ------- ----------
Emergency Preparedness Plan Inquiries	(-----) ------- ----------

13.2 EMERGENCY MANAGEMENT ALBERTA

24-Hour Emergency Number	Regional EMO

14.0 FAN-OUT PROCEDURES

A comprehensive notification fan-out chart showing how all the emergency measures organizations and stakeholders would be notified, in order or priority, is essential. It should show who contacts whom by organization and position, the communications method to be used (phone, radio phone, fax, cellular phone) and who is the back up for each contact. This plan only contains initial call-out numbers (Section 13.0) to begin the expanded notification process.

If the fan-out chart for a potential dam breach is significantly different from the one for an imminent flood emergency, then both should be provided.

Comprehensive phone lists are not required in the Emergency Plan. Those parties involved in an emergency and noted in the ERP or MEP will have their own current phone lists.

It is the dam owner's responsibility to ensure that the fan-out list is kept current in each Emergency Preparedness Plan.

The dam owner should ensure that any agency identified in the Emergency Preparedness Plan is aware of their responsibilities as outlined in the plan and is able to fulfil them accordingly.

(NAME OF) DAM - Emergency Response
FAN-OUT PROCEDURES
(Sample)

DAM OWNER/OPERATOR SITE MANAGER
--****

For any "Potential Flood Emergency" activate the REOC and contact:
(as per "Notification Log" in ERP)

Emergency Management Alberta
EMO
REOC Team Leaders and alternates

RCMP

For expanded notifications and/or an "Imminent Flood Emergency" contact the above plus:
Residents as per the "Notification Log" in the ERP if the breach is actively occurring and (Name of) County is not fully mobilized.

ACTIVATE AS PER THE ERP

REGIONAL EMERGENCY OPERATIONS

Once fully activated, the REOC will assume notification and dissemination of information duties. The center will provide logistical, site security, public information, technical and administrative support to all site initiatives.

MUNICIPAL AFFAIRS EMERGENCY MANAGEMENT ALBERTA

For a "Potential Flood Emergency" place the GEOC on Standby and contact:

EMO

Once directed to do so, expanded notifications by the GEOC will include:
(Name of) County
(Name of) County
Town of (Name of)

Special Areas
MD of (Name of)
County of (Name of)
RCMP

Energy and Utilities Board
Sask EMO
Telus
OCI&EP
Public Affairs
Alberta Infrastructure
Alberta Transportation
Alberta Municipal Affairs
Alberta Agriculture

GEOC will continue to provide information to the above throughout the event.

ALBERTA ENVIRONMENT

For any "Potential Flood Emergency", the River Forecasting Centre will utilize their broadcast advisory system to issue one of the following:
1) High Streamflow Advisory, flood watch or flood warning as per standard notification protocols (initiated by the RFC).
2) Flood Warning due to a Potential Dam Breach (for Environment dams)
3) Flood Warning due to an imminent Dam Breach (for Environment dams)

Notifications include (but not limited to):
Emergency Management Alberta

EACH RESPONDING AGENCY WILL MAINTAIN CONTACT LISTS WITHIN THEIR EMERGENCY RESPONSE PLANS TO FACILITATE NOTIFICATIONS INDICATED ON THIS CHART.

Report any errors or omissions to this listing to the Regional Emergency Co-ordinator immediately.

Note: If the hazard is determined to be in the "Potential Flood Emergency" stage all notified responders should place their Emergency Response Plans on standby. If the hazard is determined to be an "Imminent Flood Emergency" responders should immediately activate their Emergency Response Plans. This fan-out procedure was developed for Alberta Environment owned dams and can be modified to suit other dams owner's circumstances.

15.0 TABLES AND INUNDATION MAPS

15.1 GENERAL

(Name of organization) has prepared maps showing areas calculated to be inundated if the dam failed over a short period with the reservoir initially at full supply level.

Describe the assumptions used in the inundation study such as the breach width, side slopes, whether the bottom of the breach was assumed to be at natural ground, and time to breach.
Because of the many assumptions used, the stages and travel times should be considered approximate. Also, the water levels and travel times will be affected by bridge abutments and by debris temporarily retarding the flow.

Table 15.1 lists maximum stages and approximates times between the start of the breech and the start of rising stage and between the start of the breach and the time for the maximum stage at various locations.

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Table 15.1 lists maximum stages and approximates times between the start of the breech and the start of rising stage and between the start of the breach and the time for the maximum stage at various locations.

PART 2

EMERGENCY RESPONSE PLAN FOR FLOOD EMERGENCIES AT (*NAME OF DAM*)

Prepared and administered by: (*Name of Dam Owner*)
Dated:

1.0 INTRODUCTION

This **Emergency Response Plan (ERP)** For Flood Emergencies was developed from previous work carried out by Disaster Services, (now Emergency Management Alberta) and Dam Safety and Water Projects Branch (now Dam Safety) of Alberta Environment. It is intended as a guideline to assist dam owners in the development, implementation, assessment and revision of their *Emergency Response Plan For Flood Emergencies.*

A dam owner may be required by Alberta Environment to have in place an **Emergency Preparedness Plan (EPP)** that defines the emergency response measures to be implemented in the event of a dam breach. The dam owner's **Emergency Response Plan For Flood Emergencies** outlines, in order of priority, the key emergency response roles and responsibilities to implement the EPP. Dam operations staff and contractors who may have a response role should receive emergency preparedness training and be involved in exercising the emergency plans.

The **Emergency Response Plan (ERP)** follows generally accepted emergency response principles and is divided into three sections as follows:

General Plan

This section briefly outlines the purpose of the **Emergency Response Plan (ERP)**, who is responsible for the various components of the **ERP**, the general policies that apply and the procedures that will activate the **ERP**.

Check-sheets

The Check-sheets define the actions to be taken by the individuals assigned to key roles when the **ERP** has been activated. They are placed in order of priority by which key personnel may be assigned.

Appendices

Includes forms and assignment lists and key contact lists.

2.0 GENERAL PLAN

2.1 PURPOSE

The dam owner has an obligation to protect lives and prevent property damage in the event of a dam breach. Therefore, it necessary to have a dam breach **Emergency Response Plan (ERP)** to be in a state of preparedness that extends beyond normal procedures.

This **ERP** must be integrated with the dam owner's **Emergency Preparedness Plan (EPP)** and the relevant municipal emergency plan(s).

2.2 AUTHORITY

The Water Act, Water Ministerial Regulation, Part 6, requires a dam owner have in place an **Emergency Preparedness Plan (EPP)** that describes the arrangements in place to respond to a potential or actual dam breach.

The Disaster Services Act, Section 8, states that the local authority shall be responsible for the control and direction of the emergency response to a disaster or emergency event within their municipality.

The Municipal Government Act, Part 1, Section 3, requires a municipality to develop and maintain safe and viable communities.

The **Emergency Preparedness Plan (EPP)** that forms the basis for these procedures and check-lists has been developed in accordance with the Dam Safety Guidelines of the Canadian Dam Association and the guidelines prepared by Dam Safety, Alberta Environment that are specific to Alberta.

2.3 EMERGENCY RESPONSE ROLES AND RESPONSIBILITIES

2.3.1 Dam Owner

1. Assessment and determination of the Level of Emergency at the dam site.
2. Initiation of the notification of persons in the flood inundation area.
3. Mitigation and repair work at site of emergency.
4. Technical Support to the municipality(s).
5. Activation of, and technical support to, the dam owner's **Emergency Operations Centre (EOC)**, and when necessary, to a dam owner's **Site Command Post (SCP)**.

6. Emergency public information communications.

2.3.2 Municipal Government

1. Notification of persons in the flood inundation area.
2. Evacuation.
3. Search and rescue at local level.
4. Road closures.
5. Public safety.
6. Emergency lodging and feeding.
7. Emergency medical services.

2.3.3 Emergency Management Alberta

1. Co-ordinate provincial government assistance to the municipality(s) as required.
2. Co-ordinate provision of federal government assistance, as required.
3. In mutually agreed circumstances, conduct emergency operations in National Parks, First Nation Reserves, or on other properties under federal jurisdiction.

3.0 ACTIVATION OF THE ERP

3.1 INITIAL RESPONSE

Dam operational staff, on discovery of a hazardous condition at the dam, or a potential or actual dam breach, will immediately notify:

1. Senior management at *(----)------ ----------*
2. Residents located close to dam in the flood plain
3. Nearest RCMP/Police services
4. Municipalities/Towns of *(----)------ ----------*
5. Emergency Management Alberta
6. Alberta Environment ***if applicable***

3.2 ACTIVATION

The decision to activate the ERP will be made by the Dam Owner or designate when there is a:

1) A Hazardous Condition (Note: This condition poses no immediate threat to the structure but if left unchecked may put the main dam or appurtenant structures at risk),

2) A Potential Flood Emergency Condition, or

3) An Imminent Flood Emergency (Dam Breach) has occurred.

PROCEED TO THE FIRST RESPONDER CHECK-SHEET IN THE CHECK-SHEET SECTION OF THIS PLAN.

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4. Municipalities/Towns of *(----)------ ----------*
5. Emergency Management Alberta
6. Alberta Environment ***if applicable***

3.2 ACTIVATION

The decision to activate the ERP will be made by the Dam Owner or designate when there is a:

1) A Hazardous Condition (Note: This condition poses no immediate threat to the structure but if left unchecked may put the main dam or appurtenant structures at risk),
2) A Potential Flood Emergency Condition, or
3) An Imminent Flood Emergency (Dam Breach) has occurred.

PROCEED TO THE FIRST RESPONDER CHECK-SHEET IN THE CHECK-SHEET SECTION OF THIS PLAN.

The Plan may be activated in whole or in part depending on the situation.

4.0 DISTRIBUTION AND REVISION RECORD

4.1 RECORD OF REVISIONS

REVISION #	DATE	SECTION(S) REVISED/ADDED/DELETED AND REASON
Original		

4.2 ERP DISTRIBUTION LIST

DEPARTMENT	PERSON	NUMBER

5.0 CHECK-SHEETS

<table>
<tr><th colspan="7">FIRST RESPONDER
(first notified staff member)</th></tr>
<tr><th>#</th><th colspan="5">ACTION</th><th>NOTES
(Date/Time)</th></tr>
<tr><td>1.</td><td colspan="5">Determine the nature of the emergency. Observe and note as many details as possible.</td><td></td></tr>
<tr><td>2.</td><td colspan="5">Begin a written log of all communications, observations and events. Continue to maintain a log until advised otherwise.</td><td></td></tr>
<tr><td>3.</td><td colspan="5">Immediately contact a dam operations staff member and describe the emergency</td><td rowspan="8"></td></tr>
<tr><td></td><td>Name</td><td>Office</td><td>Home</td><td>Cellular</td><td>Pager</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td colspan="5">If contact cannot be made with either of the above, then contact:</td></tr>
<tr><td></td><td>Name</td><td>Office</td><td>Home</td><td>Cellular</td><td>Pager</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td colspan="5">In discussion with an operator and/or manager, a cursory determination as to the Level of Emergency will be made and will be one of the following:
• Hazardous Condition
• Potential Flood Emergency
• Imminent Flood Emergency</td></tr>
<tr><td>4.</td><td colspan="5">Once a determination has been made as to the Level of Emergency, select the appropriate Check-sheet and immediately begin completion of the action items as directed.</td><td></td></tr>
</table>

HAZARDOUS CONDITION - FIRST RESPONDER – Page 1 of 1

IF IT IS DETERMINED THAT THERE IS A HAZARDOUS CONDITION, do the following:

#	ACTION	NOTES (Date//Time)
1.	Immediately notify the dam operations staff. Ensure that the hazard site is continuously monitored.	
2.	Take measures to ensure public safety is not compromised.	
3.	Begin any mitigation measures only if directed to do so by operations staff.	
4.	Continue to monitor the site until a dam operator arrives. Report any changes in the condition of the dam immediately to dam operations staff.	

NOTE: A "Hazardous Condition" poses no immediate threat to the structure but if left unchecked may put the main dam or appurtenant structures at risk. No further notifications are required at this Level of Emergency.

IMMINENT FLOOD EMERGENCY - FIRST RESPONDER - Page 1 of 1

IF IT IS DETERMINED THAT THERE IS AN IMMINENT FLOOD EMERGENCY, do the following:

#	ACTION	NOTES (Date/Time)
1.	Begin alerting other dam operations staff and mobilizing them to the site:	

Name	Office	Home	Cellular	Pager

2.	Begin mobilizing to site any equipment or materials as directed by the operator. Refer to the "Materials, Equipment, Labour and Engineering" listing in the Resources section of this Plan for contact numbers. Stage all equipment in ***(location)***. Do NOT begin work until directed to do so by an operator.	
3.	Fully brief the operators or officials as they arrive. The first operator to respond will immediately assume the function of Emergency Co-ordinator.	
4.	Should other responders arrive before an operator, have them assist in contacting the following people and stating: "The Emergency Co-ordinator for the *(Name of)* Dam is issuing an Imminent Flood Emergency notification and you are requested to (see *Message* in box below)"	

Name	Office	Home	Cellular	Pager	Message	RESPONSE ARRIVAL TIME
					Activate response	YES/NO
					Notify municipality	YES/NO
					Come to site ASAP	YES/NO
					Come to site ASAP	YES/NO
					Standby	YES/NO
					Standby	YES/NO

5.	Your duties as the first responder end with the arrival of the Emergency Co-ordinator. You may be assigned to other duties. Remember to continue logging all your communications, observations and events until advised otherwise by the Emergency Coordinator.	

EMERGENCY CO-ORDINATOR CHECK-SHEET

EMERGENCY CO-ORDINATOR

Upon arrival at the Emergency Operations Centre or the dam site, do the following:

#	ACTION	NOTES (Date/Time)
1.	Receive a full report on the situation from the First Responder.	
2.	Establish contact with management and Alberta Environment. Ensure they have been mobilized.	
3.	When practical, view the area of concern, and in consultation with management confirm the Level of Emergency as one of the following: • Hazardous Condition • Potential Flood Emergency • Imminent Flood Emergency Until additional technical and engineering support arrive, continue to monitor the site for changes in condition. Should the condition appear to be worsening before support arrives, immediately proceed to the next level of emergency.	
4.	Once the level of emergency has been verified in consultation with senior management, select the appropriate Check-sheet and immediately begin completion of the action items as directed.	

HAZARDOUS CONDITION – EMERGENCY CO-ORDINATOR

Page 1 of 1

IF IT IS DETERMINED THAT THERE IS A HAZARDOUS CONDITION, do the following:

#	ACTION	NOTES (Date/Time)
1.	When practical, go to the hazard site and observe the situation. If the condition has worsened immediately notify management.	
2.	Take measures to ensure public safety is not compromised.	
3.	Contact senior management and advise them of the situation. Name / Office / Home / Cellular / Pager [ ]	
4.	Determine what additional equipment and human resources may be required to assist in dealing with the situation and have them mobilized to site.	
5.	Assign a dam operator to the function of Site Commander and deploy to the dam site. Begin mitigation activities.	
6.	Assume all the duties of the Emergency Co-ordinator: a) Supervise ground operations staff b) Approve action items and requests as appropriate c) Liaise with the Lead Communication Specialist and senior management in preparing media releases and briefing notes d) Maximize available resources	

NOTE: A "Hazardous Condition" poses no immediate threat to the structure but if left unchecked may put the main dam or appurtenant structures at risk. No further notifications are required at this Level of Emergency.

POTENTIAL FLOOD EMERGENCY – EMERGENCY CO-ORDINATOR

IF IT IS DETERMINED THAT THERE IS A POTENTIAL FLOOD EMERGENCY, do the following:

#	ACTION	NOTES (Date /Time)
1.	If remedial action can slow the progress of the hazard, assign a competent operator as Site Commander to co-ordinate and supervise repair activities. Equip him with a portable radio and accessories as needed, and instruct him to keep the Emergency Co-ordinator continually updated. No work is to proceed if conditions are such that staff safety is at risk.	
2.	Re-confirm with senior management the decision to proceed with the "Potential Flood Emergency" notification.	
3.	Once you have re-confirmed the "Potential Flood Emergency" condition, assemble ALL responders in the ***(location)*** and assess available resources. Assign response functions and Check-sheets (record assignments) as follows: • Assistant Emergency Co-ordinator (co-ordinates notifications/evacuations as per "Mutual Aid agreement(s)) • Duty Officers (as required) • Communication Specialist (first one on site) Continue to assign functions as responders arrive on site and as the situation requires.	
4.	Open an Event Log and record all actions taken to date. Continue to keep the Log until advised otherwise. If resources are available, assign this function to a Duty Officer.	
5.	Verify the operational status of the Emergency Operations Centre with the Lead Communication Specialist.	
6.	Assume all the duties of the Emergency Co-ordinator: a) Supervise ground operations staff. b) Supervise ongoing notification and evacuation procedures as per "Mutual Aid" agreements. c) Approve action items and requests as appropriate. d) Liaise with the Lead Communication Specialist and senior management in preparing media releases and briefing notes. e) Maximize available resources. f) Keep all operations centre staff informed on the progress of the response.	

IMMINENT FLOOD EMERGENCY – EMERGENCY CO-ORDINATOR – Page 1 of 1

IF IT IS DETERMINED THAT THERE IS A IMMINENT FLOOD EMERGENCY, do the following:

#	ACTION	NOTES (Date /Time)
1.	Once you have confirmed the "Imminent Flood Emergency" condition, assemble ALL responders and assess available resources. Assign response functions and check sheets (record assignments) as follows: • Assistant Emergency Co-ordinator (co-ordinates notifications/evacuations as per Mutual Aid agreement(s)) • Site Commander (co-ordinates activities at the dam site) • Duty Officers (as required) • Lead Communication Specialist (first one on site) Continue to assign functions as responders arrive on site and as the situation requires. Remember your priority is to ensure adequate resources are available for the notification and evacuation of people immediately below the dam as outlined in the "Mutual Aid" agreement(s) with the local authority(s).	
2.	Review the "Dam Breach Notification Log" with the First Responder and the Assistant Emergency Co-ordinator to determine/confirm evacuation message to be communicated. The Assistant Emergency Co-ordinator will now assume responsibility for continuing the notification and evacuation of residents below the dam site. Continue notifications and dispatch radio equipped trucks to begin searches of residences where no contact has been made. The local authority must be notified immediately of any residents who cannot be contacted regarding any dam breach condition.	
3.	Open an Event Log. Record all actions taken to date. Maintain the Log until advised otherwise. If resources are available, assign this function to a Duty Officer.	
4.	Assume all the duties of the Emergency Co-ordinator: a) Supervise ground operations staff. b) Supervise ongoing notification and evacuation procedures as per "Mutual Aid" agreements. c) Approve action items and requests as appropriate. d) Liaise with the Lead Communication Specialist and senior management in preparing media releases and briefing notes. e) Maximize available resources. f) Keep all operations centre staff informed on the progress of the response.	

LEAD COMMUNICATION SPECIALIST – Page 1 of 1

Upon being assigned the duties of Lead Communication Specialist, do the following:

#	ACTION	NOTES (Date /Time)
1.	Proceed to the ***(location(s))*** and establish the Emergency Operations Centre by: • Locking the front doors to control access or posting guards at all entrances to the building. • Activating the EOC mobilization plan • Ensuring the telephone lines and other communications equipment is operational.	
2.	Confirm with the Assistant Emergency Co-ordinator which Communication Specialists have been mobilized to the EOC and expected arrival time. Request additional resources if required. Begin co-ordination and deployment of the Communication Specialists as they arrive.	
3.	Liaise with the Public Media & Information Room at ----- -------- ---------- and the Government Emergency Operations Centre at.	
4.	Liaise with the media. Prepare media releases in conjunction with the Emergency Co-ordinator and management containing the following information: • Expected magnitude of the flood wave. • Likely impact on downstream users. • The amount of time available for evacuation. • The location of the evacuee staging area and/or Reception Centre. • Which areas are likely to flood. • Which areas likely will not be flooded. • How should those in the flood path protect themselves. • Any other pertinent information.	
5.	Handle all public inquires. All public and media calls are to be routed to the EOC from the Site Command Post. Telephone numbers available for the EOC use include: ----- -------- ---------- ----- -------- ---------- ----- -------- ---------- ----- -------- ---------- ----- -------- ---------- ----- -------- ---------- Do not release any other telephone numbers.	
6.	Liaise on an ongoing basis with the Emergency Co-ordinator and his assistant. Final authority with the Site Command Post and the EOC rests with the Emergency Co-ordinator.	

SITE COMMANDER – Page 1 of 1

Upon being assigned the duties of Site Commander, do the following:

#	ACTION	NOTES (Date /Time)
1.	Obtain a full report on activities to date from the Emergency Co-ordinator and First Responder. Confirm the level of emergency with the Emergency Co-ordinator.	
2.	Open an Event Log and record all actions to date. Continue to keep the Log until advised otherwise.	
3.	Telephone numbers strictly for use in the Site Command Post are: (-----)------- ---------- (Provide the telephone outlet location in the EOC) (-----)------- ---------- (Provide the telephone outlet location in the EOC)	
4.	Operators report to the Site Command Post.	
5.	Dispatch available maintenance staff and/or Duty Officers to evacuate (***location(s)***) and to close and lock and/or control all gates.	
6.	Assess the situation and report observations to the Emergency Co-ordinator.	
7.	Establish a Command Post and site perimeter with "inner" and "outer" zones if necessary, and with suitable staging areas. Establish site security. Ensure that dam site equipment is operational (gates, generator, etc).	
8.	When advised by the Emergency Co-ordinator, assign an individual(s) to notify residents, campers, visitors or any other individuals **immediately downstream of the dam**. **Advise the Emergency Co-ordinator of anyone who cannot be notified.**	
9.	Ensure occupational health and safety procedures are in place to protect site personnel.	
10.	Ensure that adequate communications equipment is available and operational.	
11.	Co-ordinate the mitigative and remedial operations at the site and maintain communication with the Emergency Co-ordinator	

ASSISTANT EMERGENCY CO-ORDINATOR
Upon being assigned to the duties of Assistant Emergency Co-ordinator, do the following:

#	ACTION	NOTES (Date /Time)
1.	Receive a full report on the situation from the Emergency Co-ordinator.	
2.	Confirm the level of emergency with the Emergency Co-ordinator. Select the appropriate Assistant Emergency Co-ordinator Check-sheet and immediately begin completion of the action items as directed.	

Telephone lines strictly for use in the Site Command Post are as follows:

(-----) ------ ---------- (*Provide the telephone outlet in the EOC)*

Emergency Operations Centre telephone numbers are:

(-----) ------ ----------
(-----) ------ ----------
(-----) ------ ----------

HAZARDOUS CONDITION – ASSISTANT EMERGENCY CO-ORDINATOR Page 1 of 1

THERE IS NO REQUIREMENT TO ACTIVATE THE ASSISTANT EMERGENCY CO-ORDINATOR FUNCTION AT THE "HAZARDOUS CONDITION' LEVEL.

NOTE: A "Hazardous Condition" poses no immediate threat to the structure but if left unchecked may put the main dam or appurtenant structures at risk. No further notifications are required at this Level of Emergency.

POTENTIAL FLOOD EMERGENCY – ASSISTANT EMERGENCY CO-ORDINATOR

Page 1 of 1

IF IT IS DETERMINED THAT THERE IS A POTENTIAL FLOOD EMERGENCY, do the following:

#	ACTION	NOTES (Date/ Time)
1.	Receive a full report on activities to date from the Emergency Co-ordinator and the First Responder.	
2.	Open an Event Log and record all actions taken to date. Maintain the Log until advised otherwise.	
3.	Begin assembling resources needed for the downstream notification and/or evacuations (human resources, telecommunications and radio-equipped trucks). Ensure communications equipment is fully operational and communication links are maintained. **DO NOT BEGIN NOTIFICATIONS AT THIS TIME.**	
4.	Confirm with the First Responder that the following have been notified: Name / Office / Home / Cellular / Pager _____ / _____ / _____ / _____ / _____ _____ / _____ / _____ / _____ / _____ _____ / _____ / _____ / _____ / _____ _____ / _____ / _____ / _____ / _____	
5.	Follow directions in the "Dam Breach Notification Log" when you are advised by the Emergency Co-ordinator to proceed with notifications. Request assistance of local authority and/or police services to assist with notifications. **Advise the Emergency Co-ordinator of any residents who cannot be notified.**	
6.	Report to the Emergency Co-ordinator when notification of downstream residents has been completed.	

IMMINENT FLOOD EMERGENCY – ASSISTANT EMERGENCY CO-ORDINATOR – Page 1 of 1

IF IT IS DETERMINED THAT THERE IS AN IMMINENT FLOOD EMERGENCY, do the following:

#	ACTION	NOTES (Date /Time)
1.	Receive a full report on activities to date from the Emergency Co-ordinator and the First Responder.	
2.	Review the "Dam Breach Notification Log" with the Emergency Co-ordinator and the First Responder. You are now responsible for continuing notifications and for dispatching radio-equipped trucks to residences where no telephone contact has been made. **THIS IS A PRIORITY TASK.** Request the assistance of the local authority and/or police services. Advise the Emergency Co-ordinator if you require additional resources. **Advise the Emergency Co-ordinator of any residents who cannot be notified.**	
3.	Open an Event Log and record all actions taken to date. Maintain the Log until advised otherwise.	
4.	Confirm with the First Responder that the following have been notified:	

Name	Office	Home	Cellular	Pager

5.	Ensure communications equipment is fully operational and communication links are maintained.	
6.	Report to the Emergency Co-ordinator when notification of downstream residents has been completed.	

DUTY OFFICER – Page 1 of 1

Upon being assigned the duties of Duty Officer, do the following:

#	ACTION	NOTES (Date /Time)
1.	Act on instructions, directions and requests from the Emergency Co-ordinator and the Assistant Emergency Co-ordinator.	
2.	Open an Event Log and record all actions. Continue to maintain operations logs, maps and situation boards until advised otherwise.	
3.	Answer the telephones, take messages, retrieve faxes, and follow-up on action items, maintain operations logs, maps and situation boards, and compile reports.	
4.	At the request of the Emergency Co-ordinator or the Assistant Emergency Co-ordinator: • Assist in downstream notifications and/or evacuations. • Provide crowd control and/or security functions. • Man roadblocks. • Assist in the Emergency Operations Centre. • Perform other response task as directed by the Emergency Co-ordinator.	

Emergency Operations Centre telephone numbers are:

(----) ------- ----------
(----) ------- ----------
(----) ------- ----------

DAM BREACH NOTIFICATION LOG

Page 1 of ___

Once the Emergency Response Plan has been activated, begin callout in the order below and state the following:

"This is *(your name)* with *(Name of Organization)*. We are issuing a notification of an *(imminent flood emergency)* breach of the *(Name of)* Dam. You are advised to vacate your premises immediately and report to *(location)* for registration. This is **NOT** an exercise or simulation and speed is of the essence. Will you be complying with this advice?"

NOTE: Keep the calls as short as possible and record all information on this log. Report back to the Emergency Co-ordinator when you have completed notifications or if you need additional resources.

#	NAME	PHONE NUMBER	ALTERNATE NUMBER	ACTIONS REQUIRED	CONTACT YES / NO	COMPLY YES / NO	DISPATCHED UNIT UNIT # & TIME	STATUS
1.	Local authority			Evacuation Order and/or Municipal Plan activation.				
2.	Emergency Management Alberta			Notification				
3.	Alberta Environment, River Flow Forecasting Program			Notification				
4.	*(Names of residents, farmers, businesses, institutions, campgrounds, parks, etc)*			Advise evacuation and removal of property from endangered area.				
5.								
6.								
7.								
8.								
9.								

EMERGENCY OPERATIONS CENTRE (EOC)
MOBILIZATION PLAN
Page 1 of 3
These are the procedures for activating the Emergency Operations Centre.

#	ACTION
1.	The Emergency Co-ordinator will supply you with an EOC mobilization kit which contains: • an envelope for each emergency response function containing a check-sheet and required supplies. • two meridian telephones and two standard telephones (clearly marked). • four copies of the Inundation maps for the use of EOC responders. • situation status board with flip chart (located in supply room). • situation status board with dry erase board (located in supply room). • stationery; adequate pens, paper etc. • two copies of the *(Name of)* Dam Emergency Preparedness Plan. • media kits with pre-worded background material. • large wall map. • battery operated radios. • extra phone cable extensions. • two information signs stating that the facility/centre is closed. **NOTE:** There **is/is not** a television located in the EOC. A fax machine is located in the *(location)* **Contact the assistant Emergency Co-ordinator if any of the above is missing from the module.**
2.	Immediately proceed to the *(location for the Emergency Operations Centre).* Advise any user/ visitors that the room/facility must be cleared; then lock the front doors (or post guards at all entrances. Hang the information signs *("Centre Closed.")* on both front doors.
3.	Arrange the tables and chairs in the area so that there are *(#)* workstations each with the following: • Communication between the dam owner's EOC telephone - will be labeled as to which line it is. • Pad of paper and writing materials. • Inundation maps. • Events logs to record all activities. • Standard information packages.

EMERGENCY OPERATIONS CENTRE (EOC) MOBILIZATION PLAN
Page 2 of 3

#	ACTION
4.	Setting up the equipment (insert detailed information for installation and activation of telephones, lap top computers, fax machines, printers and any other communications equipment). FOR SERVICE TO *(Name of telecommunication service provider)* call *(----)* ------ ---------- FOR SERVICE TO *(Name of equipment service provider)* call *(----)* ------ ----------
5.	Set up the status board so that all responders can clearly see it. Key events should be written on this board (time, event, actions, and response).
6.	Hang up the large wall map to track progression of the flood wave where EOC staff can see it.
7.	The Lead Communication Specialist will assign the priority functions to responders as they arrive: • Establish contact with the Public Media and Inquiry Room at (-----)------ ----------. • Establish contact with the Government Emergency Operations Centre. • Establish contact with the Alberta Environment (Flow Forecasting Program. • Handle all public inquiries. • Handle all media inquiries.
8.	A staging area for the media will be set up in the *(location)* if required, with adequate chairs and tables, and washroom facilities. The Lead Communication Specialist will provide regular situation updates regularly to the media, with the approval of the Emergency Co-ordinator. **Access to the dam site is restricted. Media tours are only permitted with the approval of the Emergency Coordinator and must be escorted.** • Telephones - labeled as to which line it is. • Pad of paper and writing materials. • Inundation maps. • Events logs to record all activities. • Standard information packages.

EMERGENCY OPERATIONS CENTRE (EOC) MOBILIZATION PLAN

#	ACTION
9.	Media kits with background material containing the following information will be available for the public and media with the approval of the Emergency Co-ordinator: • What caused the emergency? • Who owns the dam? • What type of dam is it? • What kind of emergency (piping, overtopping, etc) is it? • When were people first warned? • Are people being evacuated and where are the reception centres? • How can we contact evacuees? • Which roads and bridges are closed/being closed?
10.	Answers to questions relating to the emergency will be supplied by the Site Command Post on a regular basis and may include: • How is the condition progressing? • What actions are being taken? • What resources are being used for mitigation? • Who/which communities have been evacuated?
11.	EOC operations will include site security and restricting critical areas to authorized personnel.
12.	The Lead Communication Specialist will lend support to the Site Command Post if directed to do so by the Emergency Co-ordinator.

6.0 APPENDICES

EVENT LOG Page 1 of 1		
Responder's Name:	**Assigned Position:**	
Date:	**Time Log Opened:**	
Instructions	Begin this Log immediately on being assigned to an emergency response function. Document all events and responses as they occur. Care and control of this Log is your responsibility. Continue to keep this Log until advised to stand down. Submit this Log only to the Emergency Co-ordinator or to the Assistant Emergency Co-ordinator.	
TIME	**EVENT**	**ACTION and FOLLOW-UP**

RECORD OF ASSIGNMENTS

Page __ of __

Date: _____ **Time Record Opened:** _____

DATE & TIME	NAME	ACTION and FOLLOW-UP

KEY CONTACT - RESOURCE LISTING

LAST UPDATE: mo_____day_____year_____

Instructions: This is a listing of potential manpower resources available to the site response.
The list is STRICTLY CONFIDENTIAL. It is for reference and internal use only and does not replace the" Emergency Response Check-sheets DO NOT USE AS A CALL OUT LIST.

FOR EMERGENCY CO-ORDINATORS USE ONLY - FOR EMERGENCY CO-ORDINATORS USE ONLY

NAME	POSITION	FUNCTION	PHONE NUMBERS		
			WORK	HOME	CELLULAR
SC		Emergency Co-ordinator (assistant)			
SC		Emergency Co-ordinator (assistant)			
SC		Mitigation/Evacuation/Maintenance			
AR		Notification/Administration			
SC		Mitigation/Evacuation/Maintenance			
SC		Mitigation/Evacuation/Maintenance			
SC		Mitigation/Evacuation/Maintenance			
SC		Mitigation/Evacuation/Maintenance			
AR		Management			
OC		Senior Management			
OC		Management			
AR		Technical Support			
AR		Notification/Evacuation/Security			
AR		Notification/Evacuation/Security			
AR		Notification/Evacuation/Security			
AR		Notification/Evacuation/Security			
OC		Communication Specialist			
OC		Communication Specialist			
OC		Communication Specialist			
OC		Communication Specialist			
NA		Government Liaison to Municipalities			
NA		Government Liaison to Municipalities			
SC		Dam Safety			

SITE COMMAND SUPPORT	SC
OPERATIONS CENTRE SUPPORT	OC
ASSIGN AS REQUIRED	AR
NOT AVAILABLE	NA

Remember, not all responders will be available so assignments must be adjusted as the situation evolves.

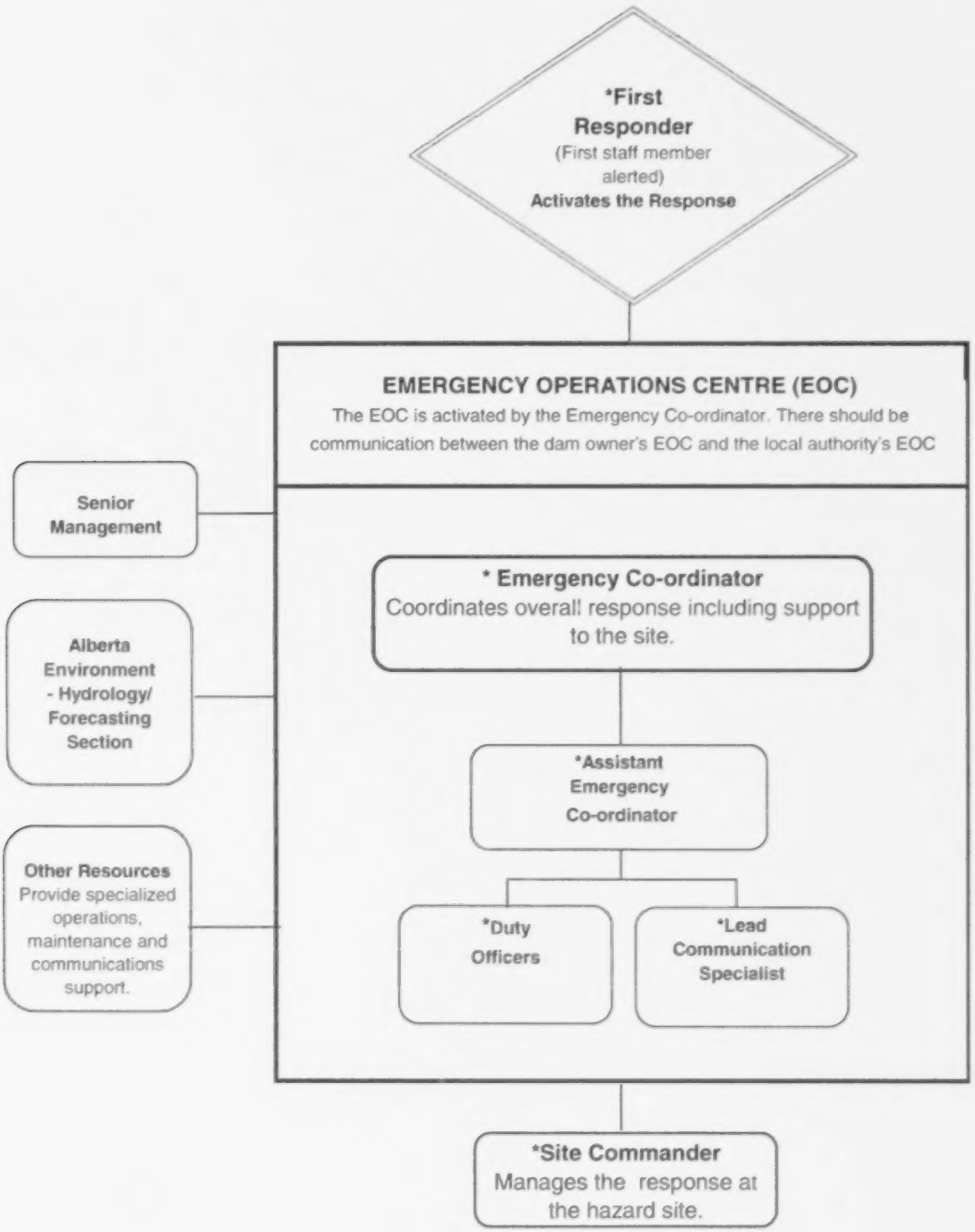
MATERIALS, EQUIPMENT, LABOUR & ENGINEERING RESOURCES

(Insert listing of resources with emergency contact telephone, fax, cellular and paging numbers as appropriate)

MUTUAL AID AGREEMENTS

(Insert mutual aid agreements)

EMERGENCY RESPONSE STRUCTURE (Example for Government Dams)


*First Responder
(First staff member alerted)
Activates the Response
EMERGENCY OPERATIONS CENTRE (EOC)
The EOC is activated by the Emergency Co-ordinator. There should be communication between the dam owner's EOC and the local authority's EOC
Senior Management
Alberta Environment - Hydrology/ Forecasting Section
Other Resources
Provide specialized operations, maintenance and communications support.
* Emergency Co-ordinator
Coordinates overall response including support to the site.
*Assistant Emergency Co-ordinator
*Duty Officers
*Lead Communication Specialist
*Site Commander
Manages the response at the hazard site.

* There is a Checksheet for this response function

See also the Glossary for details on the role and responsibilities of each response function.